

CLAIMS

1. A multimedia private branch exchanger,  
comprising:

5 a line interface unit for accommodating a  
plurality of extension lines and having a function of  
controlling communication with telephone terminals to  
be connected to said extension lines;

10 a router unit for accommodating a local area  
network and having a function of controlling  
communication with data terminals to be connected to  
said local area network;

15 an office line interface unit being provided  
commonly to said line interface unit and said router  
unit, and having a function of controlling communica-  
tion with an external communication network; and

a switching unit for selectively connecting said  
line interface unit and said router unit to said office  
line interface unit, on the basis of a request for  
setting a call.

20 2. A multimedia private branch exchanger  
according to claim 1, further comprising a power supply  
unit provided commonly to said line interface unit,  
said router unit, said office line interface unit and  
said switching unit, for supplying to each of said  
25 units power necessary for their respective operations.

3. A multimedia private branch exchanger  
according to any one of claims 1 and 2, wherein said

router unit comprises a protocol converting unit for connecting said data terminals directly to said office line interface unit.

4. A multimedia private branch exchanger  
5 according to claim 1, wherein a hub for accommodating a plurality of local area networks or data terminal devices is built in said router unit.

5. A private branch exchange system, comprising an exchanger for accommodating a plurality of extension  
10 lines and at least one office line and having various functions concerning exchange between said extension lines or between said extension liens and said office line; and a computer for carrying out part of the functions of said exchanger,

15 wherein said computer comprises means for monitoring abnormality in its own device, and means for informing said exchanger of abnormality monitor results obtained by said abnormality monitoring means; and

said exchanger comprises means for receiving the  
20 abnormality monitor results from said computer, means for discriminating abnormality on the basis of the abnormality monitor results received by said abnormality receiving means, and abnormality response means for optionally disconnecting said computer from  
25 its own device on the basis of discrimination results of said abnormality discriminating means.

6. A private branch exchange system according

to claim 5, wherein said abnormality response means comprises a function of resetting or stopping said computer.

5 7. A private branch exchange system according to claim 5, wherein said abnormality monitoring means monitors at least one of abnormality in a temperature inside said computer, abnormality in the power supply, abnormality in operations of a cooling device and abnormality in operations of said computer.

10 8. A private branch exchange system according to claim 5, wherein said computer further comprises means for monitoring recovering conditions of its own device from the abnormality, and means for informing said exchanger of the recovery results monitored by said  
15 recovery monitoring means; and

said exchanger further comprises means for receiving recovery monitor results from said computer, means for discriminating recovering conditions on the basis of the recovery monitor results received by said  
20 recovery receiving means, and means for restoring the connection with said computer on the basis of the discrimination results of said recovery discriminating means.

25 9. A private branch exchange system, comprising an exchanger for accommodating a plurality of extension lines and at least one office line and having various functions concerning exchange between said extension

lines or between said extension liens and said office line, and a computer for carrying out part of the functions of said exchanger,

wherein said system further comprises:

5 means for allowing said exchanger to inquire said computer about operated conditions of said computer; and

means for compulsorily resetting said computer when a predetermined response to said inquiry is not sent from said computer to said exchanger.

10 10. A private branch exchange system according to claim 9, wherein said resetting means compulsorily resets said computer when said computer makes no response to said inquiry.

15 11. A private branch exchange system according to claim 9, wherein said resetting means compulsorily resets said computer when said computer sends back abnormal data in response to said inquiry.

20 12. A private branch exchange system according to any one of claims 5, 8 and 9, wherein said exchanger further comprises means, when abnormality in operations of said computer is detected, for transmitting information of the abnormality to telephone terminals to be connected to said extension lines to inform said telephone terminals of said information.

25 13. A private branch exchange system according to any one of claims 5, 8 and 9, wherein said exchanger

further comprises means, when a relay station is connected to said exchanger and if abnormality in operations of said computer is detected, for transmitting information of the abnormality to said relay station to inform said relay station of the abnormality.

14. A private branch exchange system, comprising an exchanger for accommodating a plurality of extension lines and at least one office line and having various functions concerning exchange between said extension lines or between said extension liens and said office line, and a computer for carrying out part of the functions of said exchanger,

wherein said system further comprises:

means for monitoring the abnormality in operations of said exchanger;

means for initializing an operated state of said exchanger when the abnormality is detected in the operations of said exchanger by said abnormality monitoring means; and

means for setting said computer to be in a waiting state by the time when the initialization has been completed by said initializing means, releasing the waiting state of said computer after said initialization has been finished and restarting said computer.